

REMARKS

This paper is responsive to the Final Office Action having a mailing date of July 17, 2002, having a shortened statutory period expiring October 17, 2002, wherein:

Claims 1-13, 33 and 35 were previously pending in the application; and

Claims 1-13, 33 and 35 were rejected.

Claim 1 has been amended.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned **VERSION WITH MARKINGS TO SHOW CHANGES MADE**.

Rejection of Claims under 35 U.S.C. §103

In the present Office Action, claims 1-4, 6, 8-13, 33 and 35 were rejected under 35 U.S.C 103(a) as being unpatentable over U.S. Patent No. 6,324,162 B1 issued to Chaudhuri (hereinafter, "*Chaudhuri*") in view of U.S. Patent No. 6,011,780 issued to Vaman et al. (hereinafter, "*Vaman*").

Rejection of Claims under 35 U.S.C. §102

Also in the present Office Action, claims 5 and 7 were rejected under 35 U.S.C. 102(e) as being anticipated by *Chaudhuri*.

While not conceding that the Examiner's cited references qualify as prior art, but instead to expedite prosecution, Applicants have chosen to respectfully disagree and traverse the Examiner's rejections as follows. The following arguments are made without prejudice to Applicants' right to establish, for example in a continuing application, that one or more of the Examiner's cited references do not qualify as prior art with respect to an invention embodiment currently or subsequently claimed.

The Examiner's Cited References

Chaudhuri teaches a technique for restoration of service in a mesh network upon the failure of a working channel on a link connecting a pair of nodes including first attempting to route traffic on an restoration channel in the same link when such a channel is available and then if such "localized" restoration can not be accomplished, a precomputed path is implemented by end-point nodes that are connected by a path that includes the link having the failed working channel. According to the teaching of *Chaudhuri*, pre-computed path information is typically pre-stored in the end-point nodes to enable the end-point nodes to effect rapid restoration in the event localized restoration is not achievable. (*Chaudhuri*, abstract, emphasis supplied)

Vaman teaches a method and apparatus for the transparent, non-disruptable transfer of data, particularly multimedia data, through any packet-based network, such as an ATM network. According to the method of *Vaman*, a primary path and a secondary path are set up between nodes of a network so that when a switch or node establishes a Virtual Path (VP) to another switch with a specified effective bandwidth, it also has an alternate VP that is available, although no bandwidth is actually used. (*Vaman*, abstract, emphasis supplied) *Vaman* further teaches a DSDR algorithm which, "can provide bandwidth on demand during normal and faulty conditions if additional resources are available on the alternate route, and priority based services under fault circumstances when all of the resources are available on the alternate path." (*Vaman*, column 9, lines 59-63, emphasis supplied)

According to the teaching of *Vaman*, the primary path and secondary path are established between switch pairs when an ATM connection is made (*Vaman*, column 10, lines 19-22, emphasis supplied) and re-routing of transmission from the primary path to the secondary path is then accomplished without the need to re-establish communication. (*Vaman*, claim 1)

Applicants' Argument

Applicants respectfully submit that the Examiner has failed to state a *prima facie* case of obviousness as to Applicants' claims 1, 33 and 35, that the combination of the Examiner's cited references, *Chaudhuri* and *Vaman*, is improper, and that, notwithstanding the impropriety of the combination of the Examiner's references, *Chaudhuri* and *Vaman*, neither alone nor in combination, teach, show, or suggest all elements and/or limitations of Applicants' claims.

Applicants' claim 1, as amended, recites a method comprising, "provisioning a virtual path between a first node and a second node...wherein, said provisioning comprises,...discovering a physical path from said first node to said second node by dynamically identifying any intermediary nodes comprising said physical path, and establishing said virtual path by dynamically configuring a set of connections between said first node, said second node, and said intermediary nodes."

In the present Office Action, the Examiner states that, "*Chaudhuri* discloses, in Fig. 3, a mesh network comprising nodes 12A...12E communicating via optical paths 14₁...14₁₀ (a plurality of nodes coupled by optical links," where "node 12E is coupled to node 12D via nodes 12F, 12G, links 14₈, 14₇, and 14₆ (establishing the virtual path by configuring a set of links and intermediate nodes connections between the first node and the second node). See col. 7, line 62, to col. 8, lines 40." (emphasis supplied) Applicants respectfully note that the Examiner has failed to state that *Chaudhuri*, or any cited reference, teaches, shows, or suggests, "establishing said virtual path by dynamically configuring a set of connections between said first node, said second node, and said intermediary nodes" as claimed (Applicants' claim 1 as amended, emphasis supplied) and accordingly a *prima facie* case of obviousness has not been made.

In the present Office Action, the Examiner has acknowledged that *Chaudhuri* fails to disclose, "discovering a physical path from the first node to the second node by dynamically identifying any intermediary nodes comprising the physical path." Applicants would further submit that neither *Chaudhuri* nor *Vaman* taken alone or in combination teach, show, or suggest "discovering a physical path from said first node to said second node by dynamically identifying any intermediary nodes comprising said physical path, and establishing said

virtual path by dynamically configuring a set of connections between said first node, said second node, and said intermediary nodes” as claimed (Applicants’ claim 1, as amended). Rather, *Chaudhuri* teaches the use of pre-computed path information which is typically pre-stored in end-point nodes to enable rapid restoration and *Vaman* teaches setting up both a primary path and a secondary path when a virtual path is established and re-routing transmission from the primary path to the secondary path.

Lastly, Applicants respectfully submit that the combination of the Examiner’s cited references, *Chaudhuri* and *Vaman*, is improper, and further fails to teach, show, or suggest “establishing said virtual path” as claimed. (Applicants’ claim 1, as amended) More specifically, if it is assumed that “discovering a physical path from said first node to said second node by dynamically identifying any intermediary nodes comprising said physical path” is taught by *Vaman* as stated by the Examiner, such a teaching (dynamic identification of intermediary nodes) would be taught away from by *Chaudhuri*, which teaches using pre-computed path information, and their combination would therefore be improper. Moreover, a combination of *Chaudhuri* and *Vaman*, (in which presumably the DSDR algorithm of *Vaman* would be used to pre-compute primary and secondary paths to be pre-stored in end-point nodes) would still fail to teach, show, or suggest, “establishing said virtual path” by “dynamically configuring a set of connections” as claimed (Applicants’ claim 1 as amended, emphasis supplied), impropriety notwithstanding.

It is therefore respectfully submitted that Applicants’ claim 1, as amended, is allowable over the Examiner’s cited references, *Chaudhuri* and *Vaman*. Applicants’ claims 33 and 35, which include limitations substantially similar to those described with respect to claim 1, and remaining claims 2-13, which depend directly or indirectly from Applicants’ claim 1, are similarly allowable for at least those reasons as stated for the allowability of Applicants’ claim 1. Accordingly, Applicants submit that all currently pending claims are allowable and respectfully request withdrawal of each of the Examiner’s outstanding rejections under 35 U.S.C. §103 and 35 U.S.C. §102.

CONCLUSION

In view of the amendments and remarks set forth herein, the application is believed to be in condition for allowance and a notice to that effect is solicited. Nonetheless, should any issues remain that might be subject to resolution through a telephonic interview, the Examiner is invited to telephone the undersigned at 512-439-5097.

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231, on October 16, 2002.

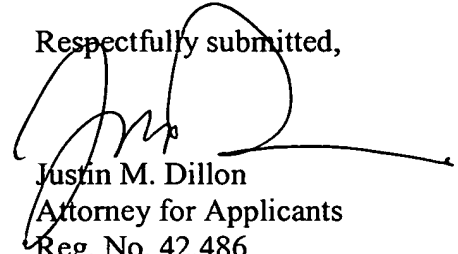


Attorney for Applicant(s)

10-16-02

Date of Signature

Respectfully submitted,


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Version with Markings to Show Changes Made

In the Claims

1. **(Three Times Amended)** A method of operating a network, the network comprising
a plurality of nodes coupled by a plurality of optical links, comprising:
provisioning a virtual path between a first node and a second node of said plurality of nodes, wherein said provisioning comprises:
identifying said first node and said second node of said plurality of nodes,
discovering a physical path from said first node to said second node by
dynamically identifying any intermediary nodes comprising said
physical path, and
establishing said virtual path by dynamically configuring a set of connections
between said first node, said second node, and said intermediary nodes,
if any, using intermediary links of said plurality of **optical** links.